

CLAIMS:

1. A detection method applied to digital coded video data available in the form of a video stream comprising consecutive frames divided into macroblocks themselves subdivided into contiguous blocks, said frames including at least I-frames, coded independently of any other frame either directly or by means of a spatial prediction from at least a block formed from previously encoded and reconstructed samples in the same frame, P-frames, temporally disposed between said I-frames and predicted from at least a previous I- or P-frame, and B-frames, temporally disposed between an I-frame and a P-frame, or between two P-frames, and bidirectionally predicted from at least these two frames between which they are disposed, said processing method comprising the steps of :

- determining for each successive block of the current frame if it has been coded, or not, according to a predetermined intra prediction mode ;

- collecting similar information for all the successive blocks of the current frame and delivering statistics related to said predetermined intra prediction mode ;

- analyzing said statistics for determining the number of blocks of said current frame which exhibit, or not, said intra prediction mode ;

- detecting in the sequence of frames, each time said number is greater than a given threshold, the occurrence of an image, or of a sub-region of an image, which is either monochrome or with a repetitive pattern.

2. A detection method according to claim 1, in which the analysis step is provided for processing the statistics of the intra modes and possible additional coding parameters, and the detecting step is provided for delivering an information about the images or sub-regions of images that are either monochrome or with a repetitive pattern.

3. A detection method according to claim 2, in which information about the location and the duration of said images or sub-images that are either monochrome or with a repetitive pattern is produced and stored in a file.

4. A detection method according to anyone of claims 1 to 3, in which the syntax and semantics of the processed video stream are those of the H.264/AVC standard.

5. A method for detecting an image or a sub-region of an image either monochrome or with a repetitive pattern in a compressed video stream consisting of consecutive frames, said detecting method comprising the steps of :

- encoding input digital video data ;
- processing said digital coded video data by means of a processing method according to anyone of claims 1 to 4, in order to identify said images or sub-images either monochrome or with a repetitive pattern.

6. A detection device applied to digital coded video data available in the form of a video stream comprising consecutive frames divided into macroblocks themselves subdivided into contiguous blocks, said frames including at least I-frames, coded independently of any other frame either directly or by means of a spatial prediction from at least a block formed from previously encoded and reconstructed samples in the same frame, P-frames, temporally disposed between said I-frames and predicted from at least a previous I- or P-frame, and B-frames, temporally disposed between an I-frame and a P-frame, or between two P-frames, and bidirectionally predicted from at least these two frames between which they are disposed, said device comprising the following means :

- determining means, for determining for each successive block of the current frame if it has been coded, or not, according to a predetermined intra prediction mode ;

- collecting means, for collecting similar information for all the successive blocks of the current frame and delivering statistics related to said predetermined intra prediction mode ;

- analyzing means, for performing an analysis of said statistics and determining the number of blocks of said current frame which exhibit, or not, said intra prediction mode ;

- detecting means, for carrying out, in the sequence of frames, a detection of the occurrence of an image or sub-region of an image which is either monochrome or with a repetitive pattern, said detecting being performed each time said number is greater than a given threshold.

7. A computer program product for a detection device, comprising a set of instructions which when loaded into said detection device lead it to carry out the steps of the detection method according to claim 1.